



Tennessee Department of Environment and Conservation
Division of Water Pollution Control
Enforcement and Compliance Section
L&C Annex, 6th Floor, 401 Church Street
Nashville, TN 37243
(615) 532-0625

Small Municipal Separate Storm Sewer System (MS4) Annual Report

1. MS4 INFORMATION

Hamilton County Water Quality Program

Name of MS4

Tim McDonald, Program Manager

Name of Contact Person

(423) 209-7851

Telephone (including area code)

1250 Market Street, Suite 3050

Mailing Address

Chattanooga

TN

37402

City

State

ZIP code

What is the current population of your MS4? 2009 Data: Hamilton County Urbanized Area 94,676; Collegedale 8,740; East Ridge 20,001; Lakesite 1,845; Lookout Mtn, TN 1,899; Red Bank 12,418; Ridgeside 402; Soddy-Daisy 12,227.

What is the reporting period for this annual report? From July 1, 2010 to June 30, 2011

2. PROTECTION OF STATE OR FEDERALLY LISTED SPECIES

A. Are any of the MS4 discharges or discharge-related activities likely to jeopardize any state or federally listed species (**Part 3, Special Conditions, General Permit for Phase II MS4s**) ☐ Yes ☒ No

B. Please attach the determination of the effect of the MS4 discharges on state or federally listed species per sub-part 3.2.1

3. WATER QUALITY PRIORITIES

A. Does your MS4 discharge to waters listed as impaired on the state 303(d) list? ☒ Yes ☐ No

B. If yes, identify each impaired water, the impairment cause(s), whether a TMDL has been approved by EPA for each, and whether the TMDL identifies your MS4 as a source of the impairment.

Waterbody I.D. #	Cause/TMDL Priority		Approved TMDL		MS4 Assigned to WLA	
Friar Branch (TN06020001007-0100)	Siltation	N/A	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
	Nutrients	L	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
	Habitat Loss	N/A	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
	E. coli	N/A	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Mackey Branch (TN06020001007-0300)	Habitat Alterations	M	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
	Siltation	M	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
	E. coli	H	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Spring Creek (TN06020001007-0510)	Unknown Toxicity	L	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
	E. coli	N/A	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No

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South Chickamauga Creek (TN06020001007-1000)	Total Phosphorous	L	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
	Habitat Alterations	N/A	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
	E. coli	N/A	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
	Siltation	N/A	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Long Savannah Creek (TN06020001029-1000)	E. coli	H	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Ninemile Branch (TN06020001067-0210)	Low Dissolved O ₂	L	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
	Habitat Alterations	N/A	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Rogers Branch (N. Chickamauga) (TN06020001067-1400)	Low Dissolved O ₂	L	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
	Flow Alterations	N/A	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
North Chickamauga Creek (TN06020001067-2000)	pH	N/A	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
	Habitat Alterations	N/A	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Fruedenberg Creek (TN06020001109-0300)	Iron	L	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
	Low Dissolved O ₂	L	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
	pH	L	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Gillespie Springs Branch (TN060200011244-400)	E. coli	M	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
	Habitat Alterations	N/A	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Stringers Branch (TN06020001426-0100)	E. coli	N/A	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
	Habitat Alterations	N/A	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Unnamed Trib. to Chickamauga Reservoir (TN06020001497-1000)	Biological Integrity	M	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Rogers Branch (Wolftever) (TN06020001880-1000)	E. coli	H	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Wilkerson Branch (TN06020001889-0300)	E. coli	H	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Wolftever Creek (TN06020001889-1000)	E. coli	H	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No

C. What specific sources of these pollutants of concern are you targeting? Pathogens from Illicit Discharges and Siltation/Habitat Alteration from Construction Activity.

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- D. Do you have discharges to any Exceptional TN Waters (ETWs) or Outstanding National Resource Waters (ONRWs)? ☒ Yes ☐ No
- E. Are you implementing additional specific provisions to ensure the continued integrity of ETWs or ONRWs located within your jurisdiction? ☒ Yes ☐ No

4. PUBLIC EDUCATION AND PUBLIC PARTICIPATION

- A. Is your public education program targeting specific pollutants and sources of those pollutants? ☒ Yes ☐ No
- B. If yes, what are the specific causes, sources and/or pollutants addressed by your public education program? Non-point source pollution from urbanized and municipal areas; sediment and habitat alteration from construction activity; pathogens and household pollutants from illicit discharges; solid waste, petroleum and miscellaneous pollutants from municipal operations.
- C. Note specific successful outcome(s) (NOT tasks, events, publications) fully or partially attributable to your public education program during this reporting period. 187 calls to the Pollution Hotline number;
- D. Do you have an advisory committee or other body comprised of the public and other stakeholders that provides regular input on your stormwater program? ☒ Yes ☐ No
- E. Provide a summary of all public meetings required by the permit. Management Committee meetings were held quarterly; Southeast Region TNSA meetings hosted in March and May 2011; County Fair outreach September 25-26, 2010; Eco-Expo April 7, 2011; UTC Earth Day April 20, 2011; Monthly Meetings SGGCA; Bimonthly meetings with Local Emergency Planning Committee.

5. CODES AND ORDINANCES REVIEW AND UPDATE

- A. Is a completed copy of the EPA Water Quality Scorecard submitted with this report? ☒ Yes ☐ No
- B. Include status of implementation of code, ordinance and/or policy revisions associated with permanent stormwater management. To be implemented in accordance with timelines in Permit TNS075566. The process began in 2011 with the Water Quality Scorecard and will be ongoing until April 19, 2015.

6. CONSTRUCTION

- A. Do you have an ordinance or adopted policies stipulating:
- | | | |
|--|---|-----------------------------|
| Erosion and sediment control requirements? | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |
| Other construction waste control requirements? | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |
| Requirement to submit construction plans for review? | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |
| MS4 enforcement authority? | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |
- B. How many active construction sites disturbing at least one acre were there in your jurisdiction this reporting period? 34
- C. How many of these active sites did you inspect this reporting period? 208 visits to 34 sites
- D. On average, how many times each, or with what frequency, were these sites inspected (e.g., weekly, monthly, etc.)? Monthly and following rain events
- E. Do you prioritize certain construction sites for more frequent inspections? ☒ Yes ☐ No
- If Yes, based on what criteria? Proximity to sediment-impaired streams and developer history. Sites and developers with histories of violations are inspected more frequently.

7. ILLICIT DISCHARGE ELIMINATION

- A. Have you completed a map of all outfalls and receiving waters of your storm sewer system? ☒ Yes ☐ No

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- B. Have you completed a map of all storm drain pipes of storm sewer system? ☐ Yes ☒ No
- C. How many outfalls have you identified in your system? 2,254
- D. How many of these outfalls have been screened for dry weather discharges? 2,254
- E. How many of these have been screened more than once? 26
- F. What is your frequency for screening outfalls for illicit discharges? Over the permit cycle
- G. Do you have an ordinance that effectively prohibits illicit discharges? ☒ Yes ☐ No
- H. During this reporting period, how many illicit discharges/illegal connections have you discovered (or been reported to you)? 13
- I. Of those illicit discharges/illegal connections that have been discovered or reported, how many have been eliminated? 7

8. STORMWATER MANAGEMENT FOR MUNICIPAL OPERATIONS

- A. Have stormwater pollution prevention plans (or an equivalent plan) been developed for:
- | | | |
|---|---|--|
| All parks, ball fields and other recreational facilities | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| All municipal turf grass/landscape management activities | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| All municipal vehicle fueling, operation and maintenance activities | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |
| All municipal maintenance yards | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |
| All municipal waste handling and disposal areas | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |
- B. Are stormwater inspections conducted at these facilities? ☒ Yes ☐ No
- If Yes, at what frequency are inspections conducted? Annually with municipalities and county-owned facilities on a prioritized list; sites with greater risk to water quality are inspected more frequently.
- C. Have standard operating procedures or BMPs been developed for all MS4 field activities? (e.g., road repairs, catch basin cleaning, landscape management, etc.) ☐ Yes ☒ No
- D. Do you have a prioritization system for storm sewer system and permanent BMP inspections? ☐ Yes ☒ No
- E. On average, how frequently are catch basins and other inline treatment systems inspected? Depends on the municipality.
- F. On average, how frequently are catch basins and other inline treatment systems cleaned out/maintained? Depends on the municipality.
- G. Do municipal employees in all relevant positions and departments receive comprehensive training on stormwater management? ☒ Yes ☐ No
- H. If yes, do you also provide regular updates and refreshers? ☒ Yes ☐ No
- If so, how frequently and/or under what circumstances? Annually

9. PERMANENT STORMWATER CONTROLS

- A. Do you have an ordinance or other mechanism to require:
- | | | |
|---|---|--|
| Site plan reviews of all new and re-development projects? | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |
| Maintenance of stormwater management controls? | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |
| Retrofitting of existing BMPs with green infrastructure BMPs? | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |

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- B. What is the threshold for new/redevelopment stormwater plan review? (e.g., all projects, projects disturbing greater than one acre, etc.) All projects disturbing greater than one acre; projects that are part of a larger common plan of development, and sites not otherwise permitted that incur at least two violations.
- C. Have you implemented and enforced performance standards for permanent stormwater controls? ☒ Yes ☐ No
- D. Do these performance standards go beyond the requirements found in paragraph 4.2.5.2 and require that pre-development hydrology be met for:
- | | | |
|----------------------|------------------------------|--|
| Flow volumes | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Peak discharge rates | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Discharge frequency | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Flow duration | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
- E. Please provide the URL/reference where all permanent stormwater management standards can be found.
www.hamiltontn.gov/waterquality
- F. How many development and redevelopment project plans were reviewed for this reporting period? 21
- G. How many development and redevelopment project plans were approved? 20
- H. How many permanent stormwater management practices/facilities were inspected? 2 BB&T, Woodridge as sites that were completed and required follow up inspections.
- I. How many were found to have inadequate maintenance? 0
- J. Of those, how many were notified and remedied within 30 days? (If window is different than 30 days, please specify) N/A
- K. How many enforcement actions were taken that address inadequate maintenance? N/A
- L. Do you use an electronic tool (e.g., GIS, database, spreadsheet) to track post-construction BMPs, inspections and maintenance? ☒ Yes ☐ No
- M. Do all municipal departments and/or staff (as relevant) have access to this tracking system? ☒ Yes ☐ No
- N. Has the MS4 developed a program to allow for incentive standards for redeveloped sites? ☐ Yes ☒ No
- O. How many maintenance agreements has the MS4 approved during the reporting period? 17

10. ENFORCEMENT

- A. Identify which of the following types of enforcement actions you used during the reporting period, indicate the number of actions, the minimum measure (e.g., construction, illicit discharge, permanent stormwater control) or note those for which you do not have authority:

Action	Construction	Permanent Stormwater Controls	Illicit Discharge	Authority?	
Notice of violation	<u>#7</u>	<u>#0</u>	<u>#7</u>	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Administrative fines	<u>#0</u>	<u>#0</u>	<u>#0</u>	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Stop Work Orders	<u>#2</u>	<u>#0</u>	<u>#0</u>	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Civil penalties	<u>#5 total \$2000</u>	<u>#0</u>	<u>#0</u>	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Criminal actions	<u>#0</u>	<u>#0</u>	<u>#0</u>	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Administrative orders	<u>#0</u>	<u>#0</u>	<u>#0</u>	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Other <u>Warnings</u>	<u>#5</u>	<u>#0</u>	<u>#0</u>		

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- B. Do you use an electronic tool (e.g., GIS, data base, spreadsheet) to track the locations, inspection results, and enforcement actions in your jurisdiction? ☒ Yes ☐ No
- C. What are the 3 most common types of violations documented during this reporting period? Failure to install, maintain, and use erosion controls during construction; failure to install, maintain, and use E&SC following construction (site stabilization); illicit discharges.

11. PROGRAM RESOURCES

- A. What was your annual expenditure to implement the requirements of your MS4 NPDES permit and SWMP this past reporting period? Revenues \$636,164.99, Expenditures \$491,005.59
- B. What is next year's budget for implementing the requirements of your MS4 NPDES permit and SWMP? Revenues \$640,651.00, Expenditures \$620,886.75.

- C. Do you have an independent financing mechanism for your stormwater program? ☒ Yes ☐ No
- D. If so, what is it/are they (e.g., stormwater fees), and what is the annual revenue derived from this mechanism?

Source: <u>Stormwater Fees</u>	Amount <u>\$608,607.27</u>
Source: <u>Retention Pond Operating and Maintenance Fees</u>	Amount <u>\$14,846.00</u>
<u>Permitting Fees</u>	<u>\$4,793.20</u>
<u>Delinquent Fee Penalty & Interest</u>	<u>\$7,982.27</u>
<u>Retention Pond O&M Fee Interest Earned</u>	<u>\$26.25</u>

- E. How many full time employees does your municipality devote to the stormwater program (specifically for implementing the stormwater program vs. municipal employees with other primary responsibilities that dovetail with stormwater issues)? 8

- F. Do you share program implementation responsibilities with any other entities? ☒ Yes ☐ No

Entity	Activity/Task/Responsibility	Your Oversight/Accountability Mechanism
Tenn Assoc Broadcasters	Radio Public Service Announcements	Budgeting for and paying for announcements
Municipalities	Pollution Prevention, Housekeeping	Compliance Inspections

12. EVALUATING/MEASURING PROGRESS

- A. What indicators do you use to evaluate the overall effectiveness of your Stormwater Management Program, how long have you been tracking them, and at what frequency? Note that these are not measurable goals for individual BMPs or tasks, but large-scale or long-term metrics for the overall program, such as in-stream macroinvertebrate community indices, measures of effective impervious cover in the watershed, indicators of in-stream hydrologic stability, etc.

Indicator	Began Tracking (year)	Frequency	Number of Locations
Example: E. coli	2003	Weekly April–September	20
Pathogens (TMDL Plan)	2010	Per TMDL plan	3

- B. Provide a summary of data (e.g., water quality information, performance data, modeling) collected in order to evaluate the performance of permanent stormwater controls installed throughout the system. This evaluation may include a comparison of current and past permanent stormwater control practices. To be developed during the permit cycle beginning April 19, 2011.

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13. STORMWATER MANAGEMENT PROGRAM UPDATE

A. Describe any changes to the MS4 program during the reporting period including but not limited to:

Changes adding (but not subtracting or replacing) components, controls or other requirements per paragraph 4.4.2.a of the permit. The Program Rules and Regulations were changed in January 2011 to add clear provisions for transferring, amending, and extending Land Disturbing permits; the Runoff Management Permit was deleted since the Program's Inspection and Maintenance Agreement was deemed to be adequate for enforcing maintenance of permanent stormwater controls. In addition, the fee amounts were corrected to read \$9.00 for residential units and \$108.00 per impervious acre for commercial and industrial properties. Ceilings of \$2,500 on deposits for dry ponds and \$5,000 on deposits for wet ponds were added for residential detention/water quality ponds.

Changes to replace an ineffective or unfeasible BMP per paragraph 4.4.2.b of the permit. 0

Information (e.g. additional acreage, outfalls, BMPs) on program area expansion based on annexation or newly urbanized areas. None – will be made as needed by changes in urban area or annexation. The Program has provisions for adding areas to the Program Area in the Rules and Regulation (updated January 2011).

Changes to the program as required by the division. 0

14. CERTIFICATION

This report must be signed by a ranking elected official or by a duly authorized representative of that person. See signatory requirements in sub-part 6.7.2 of the permit.

“I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.”

Printed Name and Title

Signature

Date

Annual reports must be submitted in accordance with the requirements of subpart 5.4. (Reporting) of the permit. Annual reports must be submitted to the appropriate Environmental Field Office (EFO) by September 30 of each calendar year, as shown in the table below:

EFO	Street Address	City	Zip Code	Telephone
Chattanooga	540 McCallie Avenue STE 550	Chattanooga	37402	(423) 634-5745
Columbia	1421 Hampshire Pike	Columbia	38401	(931) 380-3371
Cookeville	1221 South Willow Ave.	Cookeville	38506	(931) 432-4015
Jackson	1625 Hollywood Drive	Jackson	38305	(731) 512-1300
Johnson City	2305 Silverdale Road	Johnson City	37601	(423) 854-5400
Knoxville	3711 Middlebrook Pike	Knoxville	37921	(865) 594-6035
Memphis	8383 Wolf Lake Drive	Bartlett	38133	(901) 371-3000
Nashville	711 R S Gass Boulevard	Nashville	37216	(615) 687-7000